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ABSTRACT

This work suggests that better organization of existing sources of information available in Europe and better application of these sources to training can result in improved understanding of how information systems work, and it provides an annotated list of some of these sources. The guide opens with an introduction to public policy and urban planning in the context of developing countries, and explains that because this subject area is so focused and interdisciplinary, it is difficult to locate information in a consistent manner; thus, the information needs of the people living in urban areas of developing countries are little known or catered to. Definitions for the field are explored, and the prospective users of information networks within this field are identified, e.g., academics and researchers, funding agencies, students in Europe, consultants, and planners in the third world. Subsequent sections of the guide describe the types of materials included as reference sources (e.g., people, grey literature, and geospatial databases), and then list the resources by international organization or geographic location (United Kingdom, Scandinavia, Germany, France, Italy, Eastern Europe and the Benelux countries) from which the resources originate. An appendix presents a prototype information network. (SD)

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DATABASES AND NETWORKING FOR DEVELOPMENT

The Organisation of Information in Europe in the Field of Policy and Planning for Developing Countries

by

John Lindsay

London
1985

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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CONTENTS

1. Introduction

2. What is the field?

3. Who are the users?

    1. Academics and researchers

    2. Funding agencies

    3. Students working in Europe

    4. Consultants

    5. Planners in the third world

4. Forms of sources of material

    1. Published literature

    2. Journals

    3. Grey literature

    4. Theses

    5. People

    6. Institutions

    7. Projects

    8. Statistical data

    9. Geospatial data

    10. Management information systems

5. Access to the source material

    1. United Nations Organisations

    2. European Organisations

    3. International and professional

organisations

4. Britain
5. Scandinavia
6. Germany
7. France
8. Italy
9. Eastern European
10. Benelux

6. Options for the way forward
7. Appendices

1. Introduction

This work arises from a meeting of the Information and Documentation Working Group of the European Association of Development Institutes held in Bergen in May 1985.

There was a general Consensus that there are now new possibilities for improving the organisation of information systems as a result of developments in new technology, particularly in the fields of telecommunications, microcomputing and computer software.

This study is an attempt to give some form to that expression.

The work has been bounded in a number of ways to make it manageable. In addition we labour under a number of disadvantages. It is useful to make these disadvantages clear, as they affect all the conclusions.

The problems of the developing countries are a marginal interest within almost all fields of activity within the western world. Scientific disciplines, engineering skills, policy formulators, all these will have a tiny subset for 'third world' or 'developing countries'. At one level this is quite correct: there are no developing countries; there is an enormous combined and uneven development, where within one city or one country you will find the most extraordinary variation in access to food, water, housing, power, and of course technology and information.

But that is not the reason. Instead it is that scientific and engineering activities have long been framed in a discipline which says they are neutral and value free, that they have no social implications. So for years activities have been engaged in, with no thought for their social consequences. Within those fields, the literature has small subsections called 'social implications' in the same way as we find 'development' a small section.

Similarly within the social sciences the policy implications of work have been a small subset, again labouring under a desire to capture a 'social' 'science', which is a far way from the policy conclusions which follow.

In addition, within the subset 'third world' of the sub-set 'social sciences', the bulk of the literature flows from a neo-colonial perspective not far removed from the ethnology or anthropology of imperial days, complicated by a charitable attitude to 'aid' as a guilty response to perceived suffering which clashes at a different trajectory with the economic interests of particular countries. The literature is far from value free or neutral. And its organisation in turn reflects and represents specific interests.

So within the sub-set 'third world' of the sub-set 'social sciences' there is a further division called 'development studies' which might cover a multitude of sins of commission and omission. The desire of this paper is to go one stage further and work within a field which we will call 'development planning' because we wish to identify a body of information the purpose of which is to move from social analysis to the definition of policy, to the implementation of that policy through specific institutions and projects, the economic impact of which can in turn be evaluated, which in turn can inform the training which we conduct, at no little expense.

And within this now tiny field, there is historically a body of literature dealing with the rural. It was working within an institution, the Development Planning Unit, that I became aware how little understood or regarded the vast mass of people living in large cities is and how little their needs for information are catered for.

This paper wishes to suggest that by a better organisation of the sources of information available in Europe, and a better application of that information in training, we can improve our understanding of how systems work. We might, in the process, contribute to our standard of living.

In this study then we are operating at a triple disadvantage: the third world is minority interest, policy and planning is a minority interest, and the urban concern is a minority interest. We still have little idea of the sort of information which we require for the planning of big cities, or for the operation of economies in the face of the apparent inadequacy of the 'market' as the great information system. The starting point here is to gain a better idea of what is currently available, how it is organised, how we can gain access to it, with some suggestions on how we might improve.

This will, I hope, contribute to the discussion, continued at Bergen, and which is to be taken further at the next meeting, at the Institute for Development Studies, in Brighton, in 1986.

2. What is the field?

The field of public policy and planning in developing countries need some explanation.

There are a number of historic developments in information systems which we can briefly look at. Probably the traditional would be:

Chemistry, biology	Chem Abstracts, Biosis
agriculture	Agris, CAB
rural development	Rural Development Abstracts
the third world	?

or, to give another example:

Engineering, structures	Engineering Abstracts
building construction	Barbour, IRRD
architecture	API
human settlements	???(UNCHS Document Centre

or again,

chemistry, anatomy	Chem Abs, Medline
pharmaceuticals, food	Mims, Agris
medicine	Medline

health ???

electronics, engineering Inspec
informatics Computer Abstracts
information systems LISA
management ANBAR?

What becomes clear is if you start with the physical sciences, then move on to an application or applied science, you can then posit a social or human science which has a development application. In this field the literature is traditionally badly, or less well, organised.

If you approach investigation by another path:

Analysis of social institutions
theory
policy
planning
projects
evaluation

you see that there is not information system which has been defined to satisfy the queries which will be generated within this type of activity. If you look at the developing countries you see the problem compounded: the literature on social policy and planning is a minority literature within a field of the predominantly physical sciences, and the study of development is a minority within that.

So far I have been considering only the traditional area of documentation. If we look at other types of data - the wide availability recently of financial data - we are an even more primitive level. Commodity prices, demographic statistics, trade data has no established system to back up access. It is also an area where the side differences of access between companies in the City of London for example, and the governments of the developing countries, are at their widest. Even researchers in Europe are comparatively disadvantaged.

Another complexity for the organisation of the information is that there is a tradition in Europe of studying regions of the third world. There are networks of institutions and information systems which can roughly be divided into the Arab region, Africa, Asia and Latin America. These in turn divide so North Africa, SAHEL, SADCC countries, South East Asia and so forth have specialist groups and institutions. In some cases these regional divisions in turn follow the patterns of the old colonial empires.

3. Who are the users?

I should be a little more concrete now about who I consider the body of users to be.

Academics, researchers and trainers

Firstly there are the academics and research workers in Europe. I am starting with them because they are here, they have a well-established tradition and pattern of information generation, they are probably responsible for most of the material with which we have to concern ourselves. Reduction of available funding is making them more aware that more care has to be taken with resources.

The field of interest as I have defined it though presents us with problems. We would have been better off possibly to have considered all the social sciences, but that would have cut our the people who are interested in implications of new technology, or the telecommunications experts who are interested in the development aspects. In other words, there are scientists who are concerned with development and there are developers who are concerned with the technical.

Similarly there are those who are not interested in the policy implications. So we have a three way definition:

policy and planning;
development
traditional academic discipline

So although we can say that in Britain a number of universities and polytechnics have schools of development studies, or some such title, in addition almost all will have departments of geography, economics, management, parts of which will have third world facets, though by no means all; in addition there will be departments dealing with architecture, transportation, civil engineering, computer science, where there will be interest in the development implications though often by a single isolated individual.

Our users therefore will not simply be interested in the established literature on development, and its policy applications, but secondly there will be material within the more established information sources which will be relevant.

Clearly works such as World of Learning will be useful for indicating institutions, and those which have schools of development, but they will fail to indicate individuals or departments with either a strong policy or development interest within other sections.

Then we move on to a particular type of academic, those concerned with training - the practical translation of theoretical world into the ability of workers in the field to change deliberately the environment. Their information needs might well be different. Here information needs move from the traditional social sciences into a much wider area. If you go back to my chart, they move from the bottom line into the line of applied sciences. They will also be more concerned with the availability of information in the developing countries as well.

Funding Agencies

The bodies which grant aid for the third world and which award research funds are clearly interested in what the money is used for, where it goes, who uses it and what it is used for. They are becoming increasingly interested in whether it is being used to the best possible purpose and whether it is achieving the desired end. Their information

requirements will become more sophisticated as they become more demanding for accountability.

There is some evidence that they are becoming more aware of the uses of information for both policy planning on development and the administration of their development activities. They are likely to become a major source of the information supply to the other types of users.

Included here are the international agencies, the national governments of the donor countries and a number of charitable organisations including religious bodies.

Students working in Europe

This group is worth identifying next because they are the group with has the greatest need to be able to get hold of difficult material, and to know that there are other people from their parts of the world working in Europe at the same time. Traditional western academic disciplines and traditional social organisation among academics might mean that their actual community of interest is hidden, possibly even to them.

They will in general have been funded by a limited number of institutions, so it should not be impossible to track them down. They are here for only a short while, so need to be able to access the sources of information quickly.

There is then the other type of student, the European who is either studying 'development' or how must have comparative component in another field. Some will in turn work in the third world. They are under less pressure, but evidence indicates that their information requirements are not understood or developed.

Consultants

Brenda White indicated more than ten years ago the limitation on the use of information by planners - I see no reason to presume that this has changed. There is even less indication that other consultants make use of formal information systems. On the contrary, the slight evidence I can draw on indicates they are even more dependent on the informal. This is worth more study, but in the meantime I think we can presume that they draw on a very small information base, would be unable to afford, particularly if working in small practices, to build up an extensive documentation collection and maintain it, and probably rely on outdated and erroneous data.

When they are working in the field the situation might be even worse. We probably need to separate those consultants who are concerned in formulating policy and drawing up plans, from those who are involved in specific project implementation. Their information uses and requirements will be different, as will their expectations.

When part of a large practice within an international organisation they might be rather better served, though more work needs to be done on this - my slight acquaintance with practices in Britain indicates no grounds for thinking they are well informed, particularly about the development implications of their work rather than the technical.

This category of user is particularly important because they are information generators as well as consumers. The private nature of the contract between the client and the consultant makes it difficult to get hold of their reports. This too needs more work.

It might be worth including here also the international companies which have considerable investment in the third world. Again we know little of their information practices, and they are even less likely to be forthcoming with contributions to the organisation of the material.

Planners in the third world

There has been a tendency to talk about setting up information systems in the developing countries, and to produce a national self-sufficiency in information systems. I think this should be left to a much later stage. Unless we can improve access to information here in Europe, there will be little to export.

However while the planners are being trained here they will be introduced to a range of material and its uses which they might then want to have access to in their own practice. I will indicate at the end some of the possible small steps we might be able to take to assist.

I have concentrated on information systems in Europe because I think that is a great enough problem for the resources we have, and yet it can be handled in a manageable way so that we can see some results.

I have also distinguished, somewhat unreasonably, between those who spend most of their time in Europe with only slight incursions into the third world, from those who spend most of their time there. It is that latter who will become most aware of the limitations of an infrastructure which comprises a significant part of the capital stock of the developed countries, and from which accrues considerable benefit.

4. What are the sources?

1. Published literature

At one level I think we can say that the published literature is sufficiently well organised that we do not have to devote too much time to it. Anything to which an ISBN is allocated is traceable and available. The publishers make some effort to ensure that it is known about. I presume that readers of this paper will be acquainted with the LC and UK marc databases for example.

There are two problems. Firstly there are sections of works which might be of interest but not normally cross the paths of those working in other disciplines.

Secondly, it is not enough simply knowing that a text exists, what is needed is something indicating the significant collections. And here it isn't enough to know that somewhere or other has the best collection in the world, it is more important to know the best in terms of what might be available to you and suitable alternatives.

2. Journals

At one level there isn't too great a problem here, in that Ulrich's Directory of Periodicals lists, with a subject index, most journals that have established some prominence in the field. A study of the organistion of the subject index though will show the problem of imprecision and cross-classification in the way the material is ordered. In addition its coverage is substantially in the US and English language areas, leaving journals produced in the third world out almost entirely. It also fails to cover the newsletter format which is an extremely important source of data. Probably more useful is UNESCO's social sciences periodicals directory.

Further though, we are concerned not simply with knowing of the existence of a journal, but being able to get at the contents.

The German Comparative Index to periodicals Articles on Microfiche is at present too expensive to be widely available. The main on-line databases which include journal articles require considerable knowledge by intermediaries, again arising form the sort of problem I discussed earlier, have significant limitations caused by the query language, and are expensive. As with the LC and UK marc databases, I presume readers of this paper are aware of Social Sciences Citation Index, LISA, and so forth. Research indicates that they have so far failed to provide a useful entry to the journal literature. There is however the need for more extensive work on this, some of which is to be funded by the British Library.

3. Grey literature

In this field we are now coming to grips with the type of material where the concern is more recent. The SIGLE project has begun to pull together material within a European context, but remains firmly wedded to the scientific literature. The work of Transmedia with the University of Warwick in the series Economic Working Papers has been a step forward, but they are not integrated into any other information system, are not accessible interactively, and the method of subscription makes them expensive then you might need only one in a year.

Working papers of many institutions, government semi-publications, consultants reports, unpublished documents, are the sorts of materials we are considering here. They are difficult to know about, trace or get hold of, usually with very small production runs, expensive to reproduce, of brief currency and often important precisely for their currency. Simply ordering, invoicing and cataloguing can prove more expensive than the document, though at the other extreme are reports costing hundreds of dollars from consultants.

There is also the argument that as they are the property of the client by whom they were commissioned, they ought not to be available in any case.

4. Theses

These represent possibly the most valuable and underutilised body of literature on developing countries, involving considerable and thorough literature searches, utilise primary material, are reviewed by experts in the field, and then disappear without trace. I have considered elsewhere the difference between the handling of PhD literature in the USA

with that in Europe, and consider the correction of this imbalance a matter of urgency. See later sections.

5. People

We now begin to move away from the established fields of documentation and bibliographic control into areas which are increasingly being seen as equally important, but on which little work has been done.

At one level a people file appears self-evident. Every institution maintains an address list, but not always is this seen as a valuable information source. I would like to suggest that the logic here is to regard access to files of people, experts, those with particular experience as now not only worth doing, but that the availability of cheap and easy to use database management systems (DBMS) has made this simple.

6. Institutions

Maintaining a database of people runs logically on to maintaining a database of institutions. To be able to identify the centres of excellence in a particular field is obviously useful; a number o referral systems such as INFOTERRA have tried this in the past.

What I think is more useful though is to build up files on these institutions - their prospectuses, staff lists, publications lists and so forth, and in the database to identify not only their addresses and telephone numbers, as would have happened in the past, but much more as well. The work of the OECD Development Centre, is an indication of useful work in this field.

7. Projects

Following logically from institutions, is their work. The projects files though need much more than simply that the projects are happening, useful though that is. In addition they need information about funding, publications, participants, evaluations. This sort of information will then make the exercise of economic impact analysis much more effective.

Clearly also this will be of use to the funding agencies and policy implementors of the developing countries for they will be able to aggregate upwards the quantity fields and draw conclusions on economic implications at a strategic level.

8. Statistical database

We have now left the traditional work of documentation centres thoroughly. The historic division between librarians and statisticians and the development of national computer centres emerges. Though libraries held published volumes of statistics, they have been much slower to see the responsibility for digitised statistical data. Similarly though the field of documentary databases is well listed, the Cuarda Directory for example, access to statistical databases is more difficult.

9. Geospatial Databases

Now we are moving into the area of the almost unknown, where even in Europe little is known. The UDMS conferences and the work of bodies such as BURISA probably indicate the directions in which we need to move, but at this stage it is simply a matter for drawing attention.

10. Management information systems

The same applies here. We are barely at the level of knowing what to teach or what sort of systems to design. Information on the systems has barely begun. I am attempting to build up a bibliography, and a collection at the Library Association Library, but this is an area in which much more work needs to be done. My paper of UNCRD on Training in Information Systems Design for Urban and Regional Planners deals with this in more detail.

5. ACCESS TO THE SOURCE MATERIAL

5.1. UNITED NATIONS ORGANISATIONS

ACCIS

Recent work by the ACCIS and the publication of the Directory* of UN databases (DUNDIS)*, containing information on 249 databases has made writing about this area considerably easier. The Technical Panel on Access to UN Databases is to continue work in this field. I would suggest that their work is not duplicated, but that they be encouraged to make their results available in more than hard copy to non-UN organisations. The ACCIS Newsletter needs to be consulted by anyone wanting to keep up to date in this field.

The Technical Panel on the Register of Development Activities proposes to develop a prototype register which will draw heavily on the work of the UNDP. It is to be anticipated that this work will meet a certain antipathy as there will be a suspicion on the purpose of collecting this data. The funding institutions of the aid giving countries should be able to co-operate in this work. Se later sections dealing with national activities.

The Technical Panel on Computer-Based Communication Services is experimenting on facilities for electronic mail. One of its problems is that there is some disputation between the International Telecommunications Union and the UN on how far work in this field can be extended. Again the aid-donor agencies within some national governments might be able to co-operate in this.

I don't want to repeat information available within the Directory, but as the main thrust of this report is on the networking facilities which are capable of being developed, it is worth mentioning that the OECD datatapes from which the Directory of Research Institutions and Projects (1982) * was generated were sent to the Liaison Centre on Non-Governmental Organisations (on the same floor as ACCIS in Geneva) and are up and running, though only in text form at this stage, comprising part of the RINGO* database.

UNESCO

Reference needs to be made to DUNDIS for information on what is up and running within UNESCO. The main limitations here is that none of the databases are accessible from outside the buildings in Paris. It is a matter of some urgency that UNESCO make available external communications into the on-line network.

Within UNESCO one database needs some more detailed discussion because of its possible implications for the general thrust of this report. DARE has been functioning for many years as a central information source on the whole field of the social sciences, producing a directory of periodicals, and now the first edition of a directory of institutions providing information services. Included in its plans is a directory of courses. Within its documentation centre it maintains files on a large number of institutions, which must form a useful resource for people working in Paris.

There are however a number of problems. The Selective Inventory of Information Services (on which I shall concentrate) is intended to be published once every three years, and is currently available only in hard copy. It is compiled from a questionnaire after which institutions are selected for inclusion by criteria which have not really been evolved in discussion with the body of potential users. Indeed one might say that the marketing has not really taken that body into account.

Secondly the database is concerned with the whole field of the social sciences, within which the subject matter of this paper is an already twice prejudiced subdivision. Although developing countries are clearly an important part of the work of UNESCO; any hard copy, three year old, directory is unlikely to be able to satisfy the requirements which are being considered here - a fast changing field with the introduction of new technology opening up new options. In addition the institutions concerned in training in development planning have interests which go beyond the social sciences into engineering, architecture, water supply, housing, transport and so forth. I shall return to this in the concluding section.

The work of PGI, the Statistical Office, the Science and Computing Division and many other parts of UNESCO are clearly relevant. Stephen Parker has dealt with part of this in his recent book*, for discussion on networking and databases little more needs to be added at this stage.

UNHCR

The IRIRC* database is one of the more recent to emerge. At the moment it contains 1,200 citations with an elaborate apparatus of backup thesaurus, cataloguing rules and so forth. It is spun on a Bureau using BASIS. One must question whether with foreseeable funding resources this can be in any way justified. Should it be possible to undertake an evaluation of UN information services on a cost-benefit analysis basis, this one could be worth study.

ILO

Labordoc* is one of the databases which currently contains information of relevance. It is also one which has experience of being spun commercially and for which information on user access is available. Because it is the catalogue of a library rather than simply a directory of citations of citations there is a place of last resort where the documents are available. In addition the projects, experts and activities files of the ILO will be an important input into any system on policy and planning in developing countries. The ILO also maintains a substantial mailing list which could be usefully checked of ran institutions/NGO database.

It is also the major database running within MINISIS*

FAO

AGRIS*, as an attempt at a 'universal inventory' within its field has failed to keep up with the expansion of the literature, and is concerned with the subject matter of this paper only tangentially. It is unlikely to expand its interests, or its ability to further integrate the whole field of knowledge. IN fact I think one could say that is will have been the last attempt at such an information system. Costs are now so high that we must rule our a similar exercise in any other field. If might also be worth mentioning that when mounted in the US, everything which already appears in Agricola had to be stripped out, so that only the more inaccessible remained.

Dumping data out of AGRIS presents no real difficulties, it is well established among hosts and users, and will remain an important point for document capture and awareness.

It is also involved in AGRINET*. The practical experience of agricultural librarians in the development of networking needs a substantial study.

UNIDO

LION*, the in-house database of the Vienna International Centre, covers another part of the field, that concerned with industrial development. It also of course includes an enormous amount of technical material which would be relevant on the relationship between technology and development, but not policy and planning. As it is mounted on STAIRS, there is now no real difficulty in dumping data. The library though is not well placed to thoroughly monitor the literature so it will by no stretch of the imagination be comprehensive. Even in terms of UNIDOs material, by the time it enters this system it will be already somewhat dated.

Industrial development abstracts

This publication is a hard copy abstracting service provided by UNIDO. It does not appear to be well supported or well integrated within the information work of UNIDo, and is inadequately served in terms of indexing or cumulations. Where there services deal only with the published output of their parent organisations, they need much better integration.

Systematic output from LION, integrated with other UN activities would probably be more suitable.

Microelectronics Monitor

This periodic newsletter is an important source of information on what is happening in developing countries in new technology and information initiatives in Europe. It could possibly do with fewer large chunks from English periodicals (but of course because I see them I would say that). It could also do with coming out more regularly.

The UNIDO Directory of industrial information services and systems in developing countries is another initiative which is very useful and adds to our knowledge of resources. If this is available on disc or as a datatape it will be additionally valuable. If a critical or explanatory section could be added in which the comments of consultants is included, with documentation centre build up of the reports that would be even more useful. UNIDO has also produced a small list of acronyms and addresses which is useful.

The work done on UNIDOs statistical databases is interesting because they are trying to use various sources of data to cross check for consistence and reliability, using new data to fill in gaps or correct earlier data. This will raise questions when trying to write the historic perspective, but for improving reliability it is a strategy which needs more study.

UNEP

The INFOTERRA* concept of a referral service clearly varies widely in quality according to country and input. It has been the subject of detailed studies elsewhere. It should serve as a model by which this type of service can be measured as technical capacity changes. Certainly there would be no excuse at all for in any way duplicating its efforts.

UNDP

The Project Management System being developed within the UNDP looks to be the most likely point for development of a more general database on current projects in operation.

UN ISU

Although this doesn't fall within the European remit of this paper it is worth drawing attention to the ISUs Development Information Abstracts * as an important tool. Unfortunately is contains only material falling within the aegis of UN ECOSOC, and as such doesn't approach comprehensiveness. It is supported though by an effective document delivery system which adds to its value.

UN ECE

DUNDIS cites a database on urban planning, which I haven't examined.

UN Macrothesaurus

This almost needs special mention. Now that it is available as magnetic tape, its usefulness will increase. We need however to monitor implementation, set up effective structures for editing, and as detailed developments occur through extensive use, be able to gain the full benefit of this without ending up with the cumbersome burden that UDC for example has generated.

Conclusions:

1. UN organisations are progressing towards a more coherent organisation of their data. As the major producer of material in which we are interested, their work is of enormous importance outside the organisation. It needs to be emphasized that the contribution of the UN organisations ought to be to the users, not the institutions themselves, and where emphasis is on serving member states, this can be an impediment of important work getting done.

2. Because of the political nature of much of the activity there is a tendency to allude to freedom of information as a universal good, while being in practice far from free with internally generated data.

3. Access within networks and communications among databases remains the priority. ACCIS is well aware of this. Possibly not all other contributors are so committed. To the extent we are capable of it, the users of development information need to co-ordinate their influence to aid access, networking. A group of information professionals within the UN met informally during the 1985 On-line conference. Integrating with their work will be important for development information practitioners.

4. This brief survey of just a few points cannot cover for the need of ra much more detailed work, rather than either just a directory or a newsletter. There is the need for a group of concerned participants to undertake a much more complete study, including the production of training materials for teaching access to and the organisation of the UN data system to considerable input to the development of in-country information infrastructure improvement.

Touche Ross has been awarded a contract of 90,000 to monitor the FAOs development and implementation of existing financial, accounting and management systems. The UN information systems require equal work, but by those to whom the system could be responsible rather than for formal management requirements.

5.2. EUROPEAN ORGANISATIONS

The EEC

Responsibility for the information market within the EEC lies with the DG13. It would appear that they have little cause so far to be concerned with questions of development, though they are open to becoming interested. DG8, responsible for the ACP and EDF appear to take the attitude that development has to be at the level of small and appropriate, with the failure to recognise that countries or regions do not develop like

dough in a bowl, but rather through a process which is combined and uneven. Indeed to limit access to the most advanced systems is to condemn to backwardness. Considerably greater amounts of work need to be done on policy within the EEC, which the development information participants can in part influence from within their member countries.

The Courier carries extensive information on development projects which have reached the funding stage and information on institutions. It would be useful if this monthly output could be available in digitised form.

EUROSTAT* needs to be referred to as one of the major statistical database organisations, much of whose material will be of interest here. The Statistical Office of the European Community also maintains a directory of European information centres providing data on developing countries.

The Euronet Diane Directory of databases and databanks * will be a useful guide too, with material worth adding to any information system. It contains little on developing countries, but that little is easily accessable and could provide the basis for a developing database.

TRANSDOC is a database dealing with all aspects of transportation. Much of it is technical and little to do with developing countries. In many respects it is much less competent than IRRD, but the EEC literature is at least thoroughly covered and it does give an indication of how other areas of concern in policy and planning, for example housing, could be covered.

ENREP is a database of environmental research projects funded by the EEC Only partially concerned with either policy or developing countries, it is never-the-less a source of data, and within the scope of interest, possibly capable of being incorporated into a wider network.

SIGLE..The Sigle project is a European exercise to improve access to the grey literature. Its interests are mainly scientific but it is dealing both with third world and planning material. The largest contributor is still the British Library. In some ways it is an extension of the Reports, theses and translations, which has been appearing monthly for many years.

The OECD DEVELOPMENT CENTRE

The Development Centre has for many years been building up a library with a computerised catalogue, and a register of institutions and research projects of which the European NGO section was published in 1981, the African volumes in 1982 and the Latin American volumes in 1985.* This work has recently been evaluated by Ms Pauline Ostwich, whose report forms the basis of the ICCDA proposal, to which I'll refer later.

The files are all constructed within AUTODOC*, an in-house computer package, developed many years ago and now running on a system near the end of its useful life. I have already mentioned that part of these files form a basis for the RINGO database on NGOs. An immediately useful exercise would be to get these files formatted for transfer

into micro CDS ISIS. It is to be hoped that the funding will be available for upgrading of the system, and that the valuable work of the OECD Development Centre will be expanded. In the meantime if the tapes could be made more widely available for spinning on other machines then greater use could be made of these files.

I have mentioned already the work within ACCIS for the building up of more complete files on projects. It is heartening that already co-operation with the Development Centre means that we might be able to avoid an area of duplication.

It is also worth mentioning that the OECD itself maintains substantial datatapes on statistical data which could be made more easily available.

EADI (European Association of Development Institute)

As it is a result of the work of EADI, and particularly of the Information and Documentation Working Party that this paper is being written, and as most of the conclusions will have implications for the membership of that working party, it is probably worth simply mentioning at this stage that since the meeting in Berlin in 1979 there has been a considerable growth in the level of co-operation among development institutions in Europe. The institutional membership list of EADI formed the distribution list for the questionnaire, from which I have drawn my general information about current levels of practice in networking and database construction.

It is also worth mentioning the support which EADI has given to the regional bodies of ICCDA. One of the conclusions of this work is that more interested bodies should give their support of EADI, and that EADI members should take responsibility for pressuring member governments to influence organisations to which they contribute to assist in the implementation of the recommendations of this paper.

There is one point however on which I must sound a note of warning. The EADI secretariat has recently produced a work programme to extend the activity of the Secretariat in the detail of work of the Information and Documentation Working Party. I think that programme needs to concentrate more on integrating the efforts of institutions' initiatives (details of comments available elsewhere), but would simply remark here that there is value in having any project coming from any member country commented on by practitioners. Similarly the conclusions, on which money is to be spent, need wide discussion as there is currently no real body of knowledge on correct practice for designing information systems to contribute to development planning. I disagree with the conclusions of the Ostwich report, and would have preferred a more open forum in which to discuss and clarify opinions than was made available.

UDMS

This is an annual seminar on information systems for urban planning which for the past couple of years has held seminars on developing countries and the planning of information systems. Its papers are probably the state-of-the-art coverage within Europe.

EUSIDIC

This is an association of information users which organises periodic meetings on different aspects of the information industry, which has members interested in work in the third world, but which has not been integrated into the work of the development field. I think the example of Development Information in Britain shows how these bodies can be integrated.

ECSSID

The European Council on Social Sciences Documentation has been working for some years to improve access to and organisation of information in the social sciences in Europe. It operates out of the Vienna Centre. Fragile funding and ideas beyond its budget are a limitation on its impact. In addition only part of its interest is either with policy developing countries. It has however a network which is well worth co-operating with, and contacts already established must be advanced.

SCIP

This is a consortium of schools of management within Europe, which produces a monthly index of journals and an on-line database. Only part of its material will beconcerned with the developing countries, but it will deal with the industries and corporations which have considerable investment in the third world. It is also the best example so far of a European network which exists outside the formal intergovernmental structure. As such it is worth further study on how it was set up, how it is financed and how it intends to develop.

5.3. INTERNATIONAL INSTITUTIONS

There are many international bodies which maintain working parties on information systems design within their discipline or field of interest. Often they are dependant on one particular country or interest group for funded and continued existence. Sometimes they are supported by a particularly powerful pressure group. Where one of these bodies appears to be predominantly within the sphere of interest of a particular country I have included discussion there.

Saur* maintains a substantial Directory of International Organisations. *It is important that directory should be available as a datatape as well as in paper form. Only some of the references are significant here, and, as with Ulrich, there are problems of deciding which parts of what fields are relevant to the field of interest addressed by this paper. I would like to see discussion with the company on how its data can be made more use of.

IBI

The Intergovernmental Bureau on Informatics is not so much an international body, but once part of the UN and still now has intergovernmental status. Its concerns are with the whole field of informatics and the relationship to development.

Its major concern is with influencing the high-level policy makers. It is however, with a budget of 30 million, prepared to be a considerable influence in the general applications of information planning for development. The facilities which it can offer in terms of funding and conferencing make it an institution with which closer links need to be developed. It maintains a library in Rome which is a specialised collection, access to which could be improved.

The journal Agora is an important communication device for the field of information systems and telecommunications (informatique) in the developing countries. The address list is a useful resource of those interested in the field.

IDRC

The International Development Research Centre, although mainly a Canadian office, needs to be mentioned here because of their enormous input in the field of information systems design, and the often misunderstood DEVSIS* concept and their support for the MINISIS software package. At the moment they have little direct input into development of databases or networking in Europe. The full evaluation of their contribution however remains to be written, and is well worth doing.

IFIP

The International Federation of Information Processing is the original internation body on computing. It now has a working party on developing countries, and its interests are moving far beyond computing into the whole field of information systems. The Calendar of Events in the IFIP Newsletter (published for IFIP by North Holland) is a useful checklist of meetings and conferences. A systematic collection of the documentation concerned with the field of this paper from with those proceedings is necessary.

IFLA & FID

These two bodies will be so well known to readers of this paper that I don't need to say much about them at all. It is worth drawing attention to the Guide to Centres of International Lending and Photocopying (1984) and Commercial Book Supply (1983). The work on national bibliographies, which has of course also involved UNESCO too needs mentioning. See Gorman and Mahoney's Guide.

CIBDOC

The construction industry international working party on Information and Documentation, chaired by Charles Rogers, although dealing predominantly with technical matters, is involved in important work, and has produced a guide to international information and documentation in the field of construction. We need to find a mechanism form making those with a development planning orientation more aware of CIBDOCs contribution.

ITU

The work of the International Telecommunications Union is becoming of more and more importance in the development planning field as computers and telecommunications overlap. We need to draw attention to this importance, and work out a mechanism for better integration.

IRRD

With major funding by the OECD, the IRRD has been able to maintain for many years a very effective coverage of the documentation on roads. Although only part of it deals with the developing countries, (the competence of that coverage often depends of the in-country resources) and much of it is technical, the policy and planning aspects are dealt with. This small and very specific area of the literature is at least not only dealt with in detail, but as a result of a network involving participants from many countries. Road Documentation in Developing Countries is an occasional printout from the database (which runs on Status) supplied free to interested institutions. It provides us with another case study of how the information flow in a particular field can be improved.

SORSA

The Spatially-oriented Referencing Systems Association is particularly important because so little work has been done so far on this type of data and its development implications. Two of its working parties, Number 1 technology transfer to developing countries and Number 2 on bibliographies and glossaries, need to be more effectively integrated with work of that such as the EADI Information & Documentation working party.

ICDA

The International Coalition for Development Action appears to be somewhat similar to the ICCDA network but situated in Belgium. One might be tempted to think that this is sort of institution is simply duplication for local reasons, work being done already, and that a better coordination would be to the benefit of all.

IAASSIST, IFDO, IFDA, IRED and a number of similar institutions could be commented on; certainly their existence and activity needs to be part of an information service in this field. A comment in an evaluation sense on their activities should be undertaken over a period of time.

5.4. BRITAIN

I will deal in much greater detail with Britain than any other section, partly because this material has not yet been written up, partly because I think more progress has been made in this field in Britain, and partly because outlining the issues in this way will, I hope, bring others forward to make a more complete picture for their regions.

Firstly, there are some full-scale on-line commercially available databases which are of particular concern.

CAB

The work of the Commonwealth Agricultural Bureaux is probably well known. Growing out of the field of agriculture, with the publishing of Rural Development Abstracts we had the first work in which policy and planning for developing countries was a major component. The rural limitation, though historically obvious, is a major limitation. Discussion is now underway for the formation of an editorial board of an Urban Development Abstracts to which I'll return when discussing networking.

The move into policy and planning issues has caused a number of editorial problems. Traditionally having worked within a field of scientific discipline, the editorial board has not adjusted to the change of paradigm which the political arguments of policy involve. The suitability of material for inclusion, the form of the abstracts, and the tracing of sources of potentially significant material is a much more hazardous exercise than within an established scientific discipline.

Even more interesting though than the movement into policy and planning, is the system which as been developed for the production of the abstracts, including, as of December 1985, publishing on Compact Disc Read Only Memory (CDROM). Output can be in any one of number of media - conventional abstracting journal, magnetic tape, floppy disc, microfiche, on-line access, and so forth. This is precisely the match of form which is necessary to suit the wide range of development situations within which an information practioner can expect to have to operate. The BASIS software at the heart of the system is now available in a micro form. Compatibility with micro CDS/ISIS is a matter of urgency.

Already tested is the practicality of taking a datafile from almost any make of micro computer, constructed with almost any DBMS, and loading it into the system. What remains to be investigated in more detail is the economics of the operation. There are times at which rekeying information is actually cheaper than reformatting.

What also still remains to be judged is the value of access to much of the data concerning policy and planning in developing countries within this sort of system. I will return in my conclusions to this question.

ACOMPLINE & URBALINE

These are the online versions of the Greater London Council's research and intelligence database, with which is associated the 35,000 term thesaurus. Although containing only a limited amount of material on the developing countries' there is considerable material relevant to the concept of development.

In addition many organisations are now approaching its managers to find out whether they would be prepared to spin or add to the database other material. It could become the major social policy information source in Britain.

It is worth mentioning that the database being spun within the ESA IRS is running on ISIS. Within the GLC building the files have been reformatted to run on STAIRS.

The London boroughs in turn on-line access to this file, paying only telecommunications and not computer connect time.

Unfortunately the GLC is due to be wound up in March and, as things, stand, that will be the end of ACOMPLIS. There are a number of proposals under investigation, but nothing is clear at the moment.

POLIS

The Parliamentary Information Service is another major information provider, also available on-line. Its coverage of developing countries is limited to the range within British Government policy, but again it provides a significant data source.

BLAISE

The British national database deserves a mention here because it captures all published literature, certainly that with an ISBN. It is spun as a database, publishes hard copy, and of course is attached to the national deposit and lending library, so through the system it acts as a document delivery system as well as a citation search system.

Its contribution worldwide as possibly the largest inter-library lending service is important.

Networking

Before going on to discuss smaller databases and their organisers, I should pause to explain the basis of the network (in two senses) which has brought these organisations together.

I use the word networking in two senses, firstly the informal meeting or communication of a group of people who have a community of interest, and secondly a formal combination of computers and telecommunications protocols. Let us deal with the latter first.

JANET

The Joint Academic Network is a leased line form British Telecom connecting the 43 British Universities and a number of other institutions. Each main computer site has a node on the network (which is in effect a computer organising the messages to flow into and out of the network.

The users within a College are the users of that College's computer facilities. When they wish to use the network they log onto a PAD (package assembler-disassembler) which bundles their messages, sending and receiving, through the network to the other host computer with which they wish to communicate.

Clearly the most important use of this in our field is to be able to search external library catalogues or databases being spun within the network. From the network of course we can then get into the PSTN (the usual voice telecommunications network), the PSS (the

digial packet switched network) or the IPSS (the international PSS). This means that any microcomputer, provided it has a terminal emulator (a mechanism by which it acts as a standard terminal) can then 'talk' to any other computer within this extended network, without the need for a modem. Within the network all communications and computer time are free to the user, being met out of a common fund. Only when accessing the public (which since the privatisation of British Telecom presumably means the private) network than the immediate user has to make some financial arrangement.

The GEAC system of shared catalogues within six colleges of the University of London has now provided access to a very large database. Unfortunately the software is insufficiently sophisticated to allow for searching, but the next system review will be taking this into account. It might also then be possible to serve a document, or order it on-line for linter-library loan. Conversly as a result of the cuts, while on the one hand libraries might reduce their stock seeing that someone else has something already, libraries might be more inclined to limit access for mother then their own members, as had happened with the Institute of Education.

For the institutions concerned with development policy this is clearly enormously important as almost all are small and badly funded institutions. Without the work of the JANET we could never have achieved the level of co-operation we have. Yet we have to be aware that the technical advances simply open up new policy options which have to be fought for - they won't happen automatically.

In addition to JANET, there is also the European Academic Research Network (EARN) funded by IBM until 1987. This network covers most of Europe and in each country there is a host node.

There are of course many other networks and electronic bulletin boards which are being sued for all sorts of purposes. Directories are published in all sorts of specialised journals.

In addition to a terminal emulator chip, if you have a piece of software, the version we used called in slang a 'Kermit', then you may not only use your microcomputer as a terminal emulator, but you are able to move tiles in and out, into a network, and into other machines. While this does not mean that a software package can necessarily run simply as a result of being ported over, it does mean that text and sequential datafiles can. In turn with a reformatting package datafiles with a different data structure can be reformatted.

I think this in turn means we have to re-evaluate the importance historically placed on compatibility of input form, data structure or computer hardware. (The EADI Information Technical working group will be presenting a paper on the this at the 1986 meeting.)

If Janet provides the technical basis for networking, equally important is the informal network of people who have been discussing the issues this paper is dealing with. The institutions concerned are:

Centre for Developing Studies, University of Swansea;
Institute of Local Government Studies, Development Administration Group,

University of Birmingham;
Department of Administrative Studies, University of Manchester;
Overseas Development Group, University of East Anglia;
Development of Planning Unit, University College London;
Institute of Development Studies, at University of Sussex;
Overseas Development Institute, at Regents College, London;
Project Planning Centre, University of Bradford
Royal geographical Society
Commonwealth Agricultural Bureau and
Land Resources Development Centre, Overseas Development Administration, with some others involved from time to time.

It is this group which has discussed the questions of what sorts of information are needed, how it is best organised, and how the questions of networking are to be tackled. It is the general opposition to the idea of the grad development database which has emerged during these meetings which will lead to the conclusions I'll present at the end of this paper. The institutions themselves and the contents of their databases are described in the appendix.

These institutions are of course not the only ones concerned with the question of development policy and planning. There are a number of others which need mention.

One needs to start with the government departments, because they have played such an insignificant part in providing any co-ordination. The Foreign & Commonwealth Office, the Overseas Development Administration, the Department of the Environment, are all concerned with the field and all run large libraries. In addition these departments are the major funding agencies, responsible for aid work, its implementation and evaluations, yet there exists no database of projects, or mechanism for being able to collect data or mission reports. There exists a Circle of State Librarians, but none of them have been concerned either to adequately exploit their collections, or to participate in developing shared access.

Granted these institutions exist to serve their officers and politicians. Some of them do contribute - I have mentioned the work of the TRRL and LRDC already. The Property Services Agency, the Building Research Establishment, the government contributors to the CAB are playing parts in their field, but there is a remarkable absence of policy or direction. Such is the limitation of knowledge that I have recently been commissioned by the British Library to write a report on current practice in Britain (which will be appearing in the new year).

We have recently attempted to have mission reports on information systems design and development policy in which there is a significant information component lodged with the Library Association Library, and for the material to be cataloged within LISA*. If that begins to happen it will be a step foreward.

Similarly the Third World Planning Seminar *has asked for a database of work in progress to be drawn up.

The British Council is the major body concerned with the implementation of aid policy. Their first attempt to design an information system ended in disaster. We can

only hope they will be more successful next time, but now they are not contributing to any progress. Indeed the confusion between libraries and books, computers and science, administration and planning leaves information systems design falling down a black hole.

The ASLIB Directory of Information Sources in the United Kingdom should be available next year on disc, and possibly as part of a CDROM. Vol 2 deals with the field of the social sciences. Within it is an excellent coverage of most institutions file then these can be commented on according to the opinions of many reviewers. In the meantime, I would suggest that my survey probably covers almost everything of importance.

Commonwealth Secretariat

Although not a 'British' institution, the Secretariat is housed in London. Its information work has so far been somewhat sporadic. Their guide to information training an diad resources in development studies published in 1983 was valuable but they have no plans to produce a revised edition. It transpires that the datatape is available at the IDS so a new edition, or integration into other information services would not be difficult. The also hosted a commonwealth conference on statistical data, the papers of which need wider circulation. Work needs to be done to integrate the Commonwealth Secretariat more fully into development information activities.

Economics Working Papers

The collection at the University of Warwick of working papers from many institutions around the world is unique in Britain. Although not all dealing with the third world, there will be a wide coverage. The collection is microfilmed and published half-yearly with an index by Transmedia. Unfortunately the indexing is not cumulative and you have to subscribe either to the whole bibliography or the whole full text microfilm version. This is beyond the resources of most institutions, particularly when you only want possibly a couple of papers.

Hopefully the advent of new technology will enable them to change their practice, or the University will be weaned away from Transmedia.

International Development Abstracts

IDA is a subsection of Geoabstracts, now a part of North-Holland, but until recently an independent company. Each issue covers about 500 abstracts (check), written mainly by staff at the Centre for Development Studies at the University of Swansea. This journal suffers from a very wide range of subject interest, plus the accidental nature of what gets included, plus limited indexing or retrieval facilities. It could however provide a useful input into a more general system, for which see my conclusions.

Index of Development Literature. (check)

One volume has appeared of what was to have been a series, also published by North-Holland. I am led to believe that it will be unlikely to continue. It was an index to some 4,000 (check) journals held at the Institute of Development Studies at Sussex

University, compiled manually. Should the text have been digitised in the process of production the tape would be useful input to a new system, but on tis own I would suggest that it is another example of outdated technology.

Other periodicals indexes.

It is worth mentioning that the library of the Overseas Development Administration produces a fortnightly periodical index, Development Index listing about 30 items per issue, mainly on aid, and that the Overseas Development Institute produces Periodicals Reference Bulletin bi-monthly with about 200 items per issue. There is some overlap - it is in this field that we see co-operation best working, but both leave the urban field untouched.

Capital Planning Information

Run by Don Kennington, once head of the GLC Information Service and Brenda White, whose work on planning information I referred to earlier, this company now provides an extensive information service for policy and planning, particularly in local government, and has done considerable work in developing countries.

DSA

The Development Studies Association maintains a study group on information, the membership of which is the same as the EADI Information Group, thus hopefully ensuring that there is no duplication. This group will report to the 1986 DSA Conference on developments and outline a strategy for information systems with DSA.

RIPA

The Royal Institution of Public Administration is involved extensively in training people from the third world, and maintains a large collection of material on developing countries. Its activities in this field are likely to increase.

Royal Geographical Society

This maintains a large collection, particularly of maps, and is currently undertaking its first computerisation feasibility exercise.

United Kingdom Council for Computing Development

UKCCD is headed by Julian Bogod, and in the absence of government policy in the field of what in Europe might be called informatics, this organisation has played a major role in advising developing countries on computer policy, designing information systems for government, and training.

British Urban and Regional Information Systems Association

The newsletter of this group is the most useful survey of current practice in information systems design at the level of local government. The British EADI Information and Documentation Working Group is its counterpart in concerns with

developing countries. Its newsletter* is a very useful medium for communication and its meetings a valuable chance to exchange experience. There is unfortunately no similar central government body.

This Association is also the British representative of the European UDMS, which has a much more active third world participation.

ESRC Centre for Economic Computing

This is becoming the major source in Britain for information on statistical databases and on software development of using this data. Although holding little material on developing countries, it, along with the Essex University ESRC Data Archive, is involved in discussion about improving access to third world statistical sources in Britain.

PTRC

Planning, transportation, research and computation is a company which undertakes considerably consultancy work, but in addition organises extensive training in information work and an annual summer school which attracts participants from developing countries. Its publications are a useful guide to current developments.

BCS

The British Computer Society Developing Countries Group is an important meeting ground for third world professionals working in Britain, and the British consultants who will be likely to undertake work in developing countries. As such it provides a useful forum for working out the best possible practice. It will also be involved in accrediting courses in Britain. It has co-operated in the initial stages of setting up a documentation system to monitor the literature of the introduction of new technology to developing countries.

The Third World Quarterly

This is a journal which maintains however an extensive listing of international and intergovernmental conferences and meetings, and reports them. In addition is list extensively the documentation which it receives. The editor is keen to co-operate with integration of this material into the institutions we are discussing.

BSI

The British Standards Institution is widely involved in advising developing countries in the whole field of standardisation and maintains an extensive documentation service in this field.

Chadwyk-Healey

This is a company which specialises in microform publication of government and archival publications. It maintains a considerable experience in the economics of microform publishing which will be an important component of a document delivery

service. It is worth drawing attention to the microfiched collection of world central banks' annual reports, reproduced from the IMF collection in Washington, and the non-published HMSO publications which they produce. I am also involved in discussing with Chadwyk-Healey the production of microfilmed planning material on significant third world cities, which would include all necessary planning and policy data.

The ODI networks

It is worth mentioning the networks maintained by the Overseas Development Institute in the field of water, the International Irrigation Management Institute, social forestry, pastoralism and Agricultural Administration.

The Transnational Information Centre has made more progress than most in using the publically available mailbox facility and is a participant in the international worker communication by computer network mentioned under the Netherlands ISS.

Domesday project

Although have nothing to do with developing countries, the Domesday project is worth mentioning as it gives an idea of how the technology is developing and the implications this opens. Here is a project to repeat the Domesday recording of the land and wealth of England in 1066. Many thousands of schoolchildren and academics are involved in collecting the data in many media, which will then be published on optical disc.

The Viscount Project

This project by the London and South East Regional Library co-operative is also worth mentioning because of the way it intends to use videotext as part of an on-line interactive library shared cataloguing and inter-lending scheme. Again this project has nothing to do with the subject matter of this paper (although the role of the public library service in providing material, and access to material for students working in Britain is important), but indicates a proof by example of what is possible.

Regional networks

It is worth drawing attention to the networks of a regional interest provided by SCOLMA (Standing Committee on Library Materials of Africa, administered from the Institute for Commonwealth Studies), MEDLAR (on the Middle East, with the major collection at Durham Centre for Middle East Studies), the BUCLA (British Union Catalogue on Latin America, held at the Institute of Latin American Studies, University of London). The African interest then spreads into Europe with an extended network, a conference of which is to be held in 1986. SCOLMA also plans a conference on databases on Africa in April.

Conclusion

In this section on Britain there might well be material which some readers would not think germaine to information systems design for developing countries. Certainly none

of the other countries surveyed will be covered in the same sort of detail. However this is the range of material which I think a database in the field to which I have addressed this paper would require. I would hope that other national groups would be able to maintain a database of this sort.

It is intended that not only will a computer readable file, held in dBaseII and Mirabilis be maintained and consistently added to, but at the Development Planning Unit is also maintained files on all these institutions, those cited in the appendix, and many others, which give the widest possible definition to the field of work. The more technical matters of suitable software, telecommunications, information system design consultancies an devaluations will also be documented as thoroughly as possible.

5.5 SCANDINAVIA

Although each of the countries in Scandinavia needs to be treated separately, there is a community of interest and practice in the region. All the countries tend to be generous in their aid funding, relative for example to Britain, and because each has a minority language English material is widely available. They also have a strong tradition on documentation.

There is not the same strength in computerisation however. The Ch. Michelsen Institute is now experimenting with a package called revelation for computerising the library; they have developed on e printed bibliography, on Women in development,* which was set up as a database. I now have a copy of the data on disc and will try working with int on an IBM PC. However the comments in this section do not follow a visit to the region, all have been gathered simply from reading and questions.

The Chr.Michelsen Institute also maintains the comprehensive documentation on Norwegian development projects. This annual volume is an example of the sort of databases which is essential to be able to do any real work on the impact of development projects. The database from which this is produced should be spun at a centre where access can be obtained so that formatting data into a more general file can be experimented with.

The experiment with computerisation is intended to provide the testbed for a cooperation among the four institutions in Norway concerned with development questions, Chr.Michelsen, PRIO, NUPI (the Norwegian Institute of International Affairs) and Nora (the Norwegian Government Aid Ministry).

The Nordic Union Catalogue of Periodicals issued in Developing Countries is a useful guide to material without an ISSn which would otherwise be difficult to trace.

The Norwegian Research Council for Science and the Humanities maintains a register of on-going research. That which has a third world component overlaps with the work of the Chr.Michelsen Institute. As they are both in the process of computerising, they intend to co-operate and try to avoid duplication on data input. This should provide just the sort of experiment which is needed to see the actual financial opportunities opened by new technology.

The International Peace Research Institute (PRIO) has computerised its small collection and is involved in a network attached both to Oslo University Computer Centre and to a bulletin board in Britain. this was the first non-British source which I was able to tap through the JANET network into the PSS into the IPSS route described in section*.

The database being maintained will include the call parameters and, NUIs and passwords necessary to enter available systems as we succeed in documenting them.*

The University of Oslo produces the Norwegian Union Catalogue of Foreign Books, on Fiche and hard copy until 1981, since then on-line. Of course this is much wider just developing countries, but the level of co-operation is such that it will be comprehensive.

The Norwegian Central Bureau of Statistics holds a considerable amount of third world statistical data, used by the other institutions in Norway. We need to follow up and find out more about their computerisation development and plans.

Policy Research Institute in the University of Lund has studied and published widely in the field of information systems and its contribution to development. Scandinavian Institute of African Affairs too has generated considerable data and needs to be included in any network.

Swedish Union Catalogue of Foreign Books available as fiche as is the Danish. It would appear that they will soon follow the Norwegian practice.

Byggdok is a major source of non-English material on the building construction industry with some coverage of the human settlements angle.

SIDA, DANIDA, and NORAD as the government aid agencies appear to have a better understanding of the importance of information and the need to contribute to data co-ordination than many other European governments.

University of Helsinki produces the union catalogue of periodicals in Scandinavia (Nordic) which is available on-line. Helecon is the online catalogue of the Helsinki University Economics collection. These systems are recorded in the DARE inventory. With the opening of the UN World Institute of development economic studies (WIDER), it is likely that an
important network of materials producers will emerge in Helsinki.

Scannet is an attempt to identify all databases available in the region and is intended to produce an inventory of Nordic databases. Its activities are funded by Nordinfo, the Nordic research council for library and information science.

The pages from the DARE database for Scandinavia should be sent to Kirsti Hagen-Andersen for her to edit and for her comments. She in turn would be able to advise other institutions in the region worth circulating. The Nordic network appears to function effectively so upgrading access to material should not be difficult if the strategy outlined in this paper is agreed to be the Scandinavian contributors.

5.6 GERMANY

The starting point must be the DSE. 20 volumes have now been published of the Duetsche Stiftung fur Internationale Entwicklung Entiwicklungslaender-studien which is a comprehensive listing of the research projects being undertaken by institutions in Germany. They also produce a directory of institutions. Unfortunately these databases are spun within the computer facilities of the Ministry of Finance, so that there is not possibility of interactive access. Work is currently being done to set up a computer facility independently over the next two years. Hopefully the datatape will be made available for further work. Other bodies wishing to compile detailed studies wither of the institutions or the information sources.

Attention has already been drawn to Saur's Directory of International Organisations. To this should be added the Co-operative Index to periodical articles on microfiche.

The German Federal Statistical Office publishes a series of statistical handbooks on each country, giving comprehensive data on developing countries not available elsewhere. Unfortunately these are available only in German, from Kohlhammer*, and are not available as digital tapes.

Kiel Universiteit Institute fur Welwirtschaft has a collection indexed, they estimate with 8,000,000 catalogue cards. As yet they have not computerised. Deutsches Ubersee-institut has one of the major documentation collections. It is now computerising with a Phillips system, but is not yet up on-line. They have produced a guide called Ubersee-dokumentation. These and other German collections are listed in the DARE inventory. What is still missing though is the development of computerised facilities so these rich collections can be made better use of.

GTZ and other aid agencies are important generators of information. The project material has been referred to above. What is needed is a PMS so that economic impact analysis of projects can be undertaken. There does not appear to be at this stage planning for the co-ordination of the improvement of access to this sort of material either within these organisations or the West-German government.

IRB

The Informationzentrum fur Raum und Bau is one of the major documentation centre in Germany, mainly concerned with the more technical aspects of building construction. Its database RSWB has for some time been available on Telesysteme Questel.

Attention should also be drawn to their Planen und Bauen im Ausland. Ein Wegweiser zu Informationsstellen, (1982) which lists institutions not only in Germany by in other parts of the world as well.

Recently however the West German government has funded a joint exercise with the United Nations Commission on Human Settlements, (Habitat) to run a database of research institutions and projects called HABIRES. Extensive surveying has been done for this. It is hoped that we will soon have access to this database, which will be linked to the

ICONDA project for improvement to the general construction industry material. ICONDA is intended to be an English language version of RSWB and is being undertaken in collaboration with CIBDOC.

German Development Institute does not appear in the DARE inventory, but is an important contributor.

I include Austia in this section, simply because of the convenience of language. the Vienna Centre is the most important point here for east-west communications. The weakness of coverage on Eastern Europe in this paper can partly be corrected from the EADI member ship list, from the membership of ECSSID, IIASA and comments from the Vienna Centre. It is of course not interested simply in development questions, but my discussions indicated that there is a foundation to build on. Should the sort of computerisation path be followed there would be useful addition to a European network.

The Vienna Institute for Development, although not providing a library or computerised information system, is the point through which a number of information channels flow. Its staff will be a useful addition to a network, and of course have been active in EADI for many years.

The Austrian Ministry of Co-operation and Development (OSFE) is currently surveying the 800 institutions in Austria which it thinks might have any concern at all in the field of development work. The conclusions of that study should provide a useful database on which to draw for project information, documentation and an institutions file.

The presence of the Vienna International Centre with the concentration of communications it provides, particularly through UNIDO, means that Vienna will be an important node in any European network.

There are 16 EADI membership institutions and 22 on the DARE selective inventory with a considerable overlap. The DATE input for West Germany seems to be more comprehensive in the development policy field than for most of the other European countries and forms a good basis from which to work.

5.7 FRANCE

The most important development in France in this field is the development of work on the IBISCUS database, and the associated network. The Ministere des Relations Exterieures has taken the lead in combining ten institutions to set up and run a database which so far has 35,000 entries but is clearly capable of expanding quickly. CEGET, Centre d'etudes de geographique tropicale; CIFACE, center de foramtion et d'information des agents en cooperation et a'etranger; SEDES, Societe d'etude pour le development economique et social; and ORSTOM, Institute Francais de recherche scietifique pour le development en cooperation among others are involved. The conference next April in Bordeaux on the question of dissemination of research work in the field of development planning should provide a useful chance to evaluate work so far.

The other system within France is the network spun on Telesysteme Questel. Urbamet is the database most concerned with the area of concern here. It is produced by

a number of organisations, including the Agence Co-operation et Amanagement, which is the international wing of the Ministry of Urban Affairs. The periodical abstracting newsletter which they have produced for many years, orginially as SMUH, is effectively the main input. It does mean that Urbamet is currently the most comprehensive database in the field of urban development and planning in the third world. The problem of course is that it predominantly contains either French language material, or journal abstracts in English of journals which in Britain are very widely available and cited. It does not contribute significantly to drawing attention to slightly known material.

Fortunately there is an agreement of discipline coverage between Urbamet and Ibiscus. It is to be hoped that in the not too distant future these databases will be much more easily available as part of a wider co-operative.

ACA is also to shortly produce a guide to research and practice on sources of information in human settlements, which will have a considerable third world input.

Of course with the OECD development centre and UNESCO also situated in Paris there is a powerful base of resources on which to draw. The ADBS is a network of special librarians which has a special interest group on developing countries. It is hoped that they will soon be producing a newsletter and be co-operating as a network.

BMIS

The Ministry of Musemuns and Libraries is involved in an extensive inter-library cataloguing and lending exercise which will means that at least the published literature within France will be easily traced. Run from Lyon, this large database is searchable from anywhere within the French PTT.

Data for Development

This organisation, in Marsailles, again not strictly a French organisation, has done an enormous amount of work in making information more adequately available in the developing countries. Its newsletter, Data for Development is essential for keeping up to date.

It is also worth drawing attention to the La fromation des cadres produced by Carrefour International de Formation which is a directory of institutions in France concerned with the training of third world administrators. They intended to reproduce similar guides to other parts of Europe, but the experience of this project would I hope indicate that the strategy I am suggesting here is a more fruitful course to follow. Their material though should provide a useful input to a system.

For France there are 25 member institutions in the EADI list and 36 in DARE. I would suggest that MMe Rageau from IBISCUS could be approached to extend the French coverage.

5.8. Italy

Although there are a number of international bodies such as FAO and IBI in Rome, IRS at Frascati, and a number of institutions concerned with development, there does not appear to be emerging a group such as that to be found in Britain or Paris. Inter-library work and computer networking appear to be underdeveloped.

Ministry of Foreign Affairs, Department of Development Co-operation produces the magazine Cooperazione and maintains an extensive information service. Unfortunately it is not well networked with the international organisations in Rome, so the benefit of the concentration of organisations in Rome is not made advantage of.

IDOC has been active for many years taking initiatives in the field of information systems for developing countries. They have belatedly begun to develope their computer capacity.

SID

The Society for International Development, although producing a journal, and maintaining an address list for some thousands, has made and intends to make, no contribution in the foreseeable future. It might at least be worth checking their mailing list against that of EADI and the DARE database.

One of their activities is to organise the North South Round Table. It might be possible to interest on of the national participants to get information work more prominently on the agenda. The list of participants is available. Possibly EADI groups members could chase up their contacts.

Instituto studi sulle Produzioni Avanzate

This institution has been commissioned by the Ministry for Foreign Affairs to undertake a study much along the lines of the EADI working Group.

Finafrica is one of the few organisations specialising in the financial aspects of development planning. We would hope to involve them more effectively in network development.

Italy has 16 participant institutions of EADI and 6 in DARE, with no overlap. It is difficult at this stage to see who would best be able to co-ordinate work here. Someone from IDOC might be worth approaching.

Under Italy we ought possibly mention the Roman Catholic Church, which of course has a not inconsiderable interest in the third world, and, I suspect, a well developed information system. There has to date been no formal method of access to datasources. This is an area for more work.

5.9 Eastern Europe

Limitation on time and budget prevent me from making any useful comment at this stage, other than to suggest that the general method I'm suggesting should be applied.

5.10 Benelux

The Netherlands appears to be developing the sort of network which is emerging in Britain. The Institute of Social Studies (ISS), Boucentrum, and the developing countries Institute of Housing Studies (IHS), the Royal Tropical Institute (producing now its own Rural Development Abstracts, which a quick glance with the CAB version must make one ask why?) and a number of other institutions indicate that better access and control in the Netherlands will soon be the practice.

While mentioning ISS, it might be worth also mentioning the attempt there to set up a network for people interested in labour questions and the access of workers to information. This is not central to this paper, but will provide an interesting experiment.

It is worth drawing attention to the Marna database and News Marna, (from Maritime Information Centre (Rotterdam) which although dealing with much of the technical questions, and not by any means limited to the third world, give the sort of control of the ports and shipping literature which IRRD does for roads.

The ITC is possibly the most important institution in Europe for the training of third world practitioners in the field of remote sensing and spatially oriented information systems. There are though, as I hope this paper shows, other aspects to information system for policy planners. Their training material could indicate that they are dealing with one particular perspective. They provide a major input from Europe into SORSA and the UDMS.

The IEGI in Luxemburg, though again without a specific third world interest, could play an important role in development work. As the Esprit programme magazine is edited from here as well as DG13 being located here, the possibility of improving training and gaining access to funding makes it worth trying to pull the IEGI into a development network.

The Centre for Development Studies at the University of Antwerp maintains a collection of working papers cover Africa, Latin America and Asia, currently numbering more than 5,000. The bibliography produced from this collection would be a useful contributor to an improved information service.

Hopefully the Dutch network which is developing will include Belgian institutions.

6. OPTIONS FOR THE WAY FORWARD

In this paper I have made a number of recommendations at various points, without necessarily specifying by whom or how they should be implemented. I would now like to draw these together, indicating almost what might be a strategy for us to follow.

'Us' is firstly the members of the EADI Information Group, out of whose deliberations this paper grew. It is secondly those international bodies and institutions who are committed to improving the quality and organisation of information on the developing countries, with of course, the further intention of contributing to the improvement in the quality of life of their inhabitants. These bodies are in turn, in their several ways, committed to ideals of the freedom of information. When the recommendations are considered, some might be currently technically unfeasible for reasons I don't currently understand. Some might be impracticable.

For the rest, if they appear desirable, then let us implement them.

There are a number of options which are open to us. Firstly we can follow the pattern of the past - a small number of under-resourced institutions engaging in research, teaching and consultancy, each depending on our own governments for funding and our own wits for survival. Each institution comes out of its own intellectual tradition and pursues its own path. Each new practitioner continues to reinvent the wheel and slowly be inculcated into the field of activity, in the process slowly picking up bits and pieces of contacts. In some ways no matter what we do that will remain the practice.

Secondly there is the attractive idea of the great database, modelled on Chemical Abstracts, of all and everything. It could be generated either centrally in one institution or co-operatively. AGRIS and CAB serve as models of how it would work.

Thirdly there is the path of each institution going it alone, because the responsibility of each information provider is to his/her own institution, but for a co-operation of these professionals being developed with each institution taking on board that part of the work which it can best do. But by situating that work into a general framework the pattern can emerge which makes the whole greater than the parts. As the technology changes and becomes more widely available so the system can adapt.

Conclusions

1. The current level of computer usage among institutions in Europe concerned with information for public policy and planning in developing countries is much lower than in comparable institutions in other fields.

2. There are many unco-ordinated generators of information in the field.

3. There has been little evaluative work in the value of information services; rather just a general sense of need.

4. Information services in this field are starved of finance and resources and likely to remain so.

5. Although there is a general sense of 'good' about co-operation, each institution is firstly loyal to itself and its own interests.

6. Within most institutions information services are a minor and even more underfunded part.

7. There is scope within much larger organisations to get access to facilities which would otherwise be impossible.

These conclusions are so general and so obvious that they hardly need stating, yet they form the basis of my recommendations, which revolve around the evolutionary design method of developing an information system. We need to recognise that although people might be committed to co-operation, the resources for this have to be squeezed out of tight restraints. The theme is that we have to ride on the backs of others.

Inevitably implementation implies planning. Some of them are simple and short term, they can be implemented with no great policy decisions and without great efforts of co-operation. Some however involve a larger number of people, not all of whom currently have access to the same level of training or equipment. These will have to be more incremental. In addition there are always new people and institutions entering the field who have to catch a moving bus. They need to know at what speed, in what direction and to what destination the bus is moving.

Recommendations:

1. This report should be regarded as a working document. The several parts should be sent to named people for their comments and additions.

2. The sections of the DARE output should similarly be sent. The British material has already been done. Scandinavia should go the Kirsti Hagen-Andersen at the Chr Michelsen Institute, the material on Benelux to Matty Klatter at the ISS, on Germany to Dietrich Steinert at the DSE, the French material to Mme Rageau at the Ministry of Foreign Affairs. Other sections are at the moment a little more problematic. Particularly in Eastern Europe there is need to extend our network. I would suggest that DARE pages be sent everyone who appears in the EADI membership list in the hopes of eliciting some response. These people should also be asked to circulate the DARE input questionnaire to institutions which they consider relevant.

3. The DUNDIS database entries which are relevant should be loaded into DARE.

4. The DARE database shows the possibility of being a central repository at which point information sources are recorded. The existing questionnaire needs to be extended to record computer communications facilities. The criteria for inclusion though need to be changed. I favor a network of involved participants who can make the selection. The major limitation remains the DATE is concerned with the whole of the social sciences and does not deal with many technical applications which are relevant in development. Thus only part of the database will be relevant, and there will be many institutions not included.

5. The DARE database should be made available as an ASCII standard output datatape.

6. Compatibility between microBASIS and Micro CDS/ISIS needs to be

investigated. Autodoc output should be made compatible with MicroCDS ISIS.

7. Access to UNESCO and OECD computer facilities from external points needs to be encouraged.

8. It is necessary to build up files on institutions as well as simply a directory. Each institution needs to do this for associatedinsitutions.

9. The practice of setting up information project at institutions which are not concerned with applications in teaching, research and consultancy should be discouraged.

10. The EADI Secretariat and the Information Group should concern itself with attempting to co-ordinate policy interventions by the member institutions.

11. There are two technical developments which will transform how we approach out work. These need to be monitored and explored as effectively as we can:

1. CDROM.
2. PACSAT.

12. We need to find funding to do a detailed cost-benefit study on a number of existing information systems, which would need to include a study of the user needs and perceived benefits. Put another way: I don't think enough is known about what the information services are actually used for.

13. The projects file set up by the OECD Development Centre is likely to prove to be too large and expensive to maintain. The idea of devolving responsibility to regions is in principle correct. However I do not think that the institutions indicated in the ICCDA project outlined by Ms Ostwich will be able to sustain the work. I think rather that each major institution in the region needs to build up its own projects or research files according to its profile, but that if government and aid funding agencies can generate databases of projects funded, as part of their project management systems (PMS), them we should try to ensure that these files are accessable for stripping our relevant material into in-house databases.

14. The EEC Statistical Office, the German Statistical Office and the ESRC Centre for Economic Computing should be asked to compile a guide, rather like this report, to the available statistical databases.

15. ITC and the British Remote Sensing Society, both of which now have access to proper information centres, should be asked to compile a similar report on geodata, including conventional map libraries.

16. The EADI proposal that a technical committee and a content committee should be constituted to report to the 1986 EADI meeting should be adopted.

Appendix 1: A prototype development

Funding is currently being sought from the British Library and similar institutions to take the networking of the development centres in Britain a stage further. I outline here a prototype of how the network might function.

1. The large libraries containing material on developing countries are the British Library (BL), the London School of Economics (LSE), the School of Oriental and African Studies (SOAS, and the Institute of Development Studies (IDS). The BL has one the one hand the UK Marcand BNB for published documents and the SIGLE project for grey literature. LSDE & SOAS have their own in-house systems. The IDS is in the process of implementing its first generation computer system. The British Union Catalogue on Latin America, maintained by the Institute of Latin American Studies is as yet uncomputerised, as is the Institute of Commonwealth Studies. London University is about to go into its next major computerisation programme.

2. There are then a number of small institutions: Swansea, Bradford, Birmingham, DPU, ODI, East Anglia, Manchester all of which have to co-operate if we are to improve access. Most of these are within Universities which means they potentially have access to JANET. Most are in fact also in the process of going through a stage of computerisation. Getting up onto JANET means having a microcomputer with a terminal emulator and a gateway into the network organised from within the College Computer Centre. Typically we are now talking of a micro at about 22,000, a terminal emulator almost free, a DCX line which varies in cost from Centre to Centre and depends on distance, at UCL it was 2300. The JANET facility is provided by the central funding of computer facilities and as such is free. We have therefore the mechanism for communicating via a bulletin board, electronic mail, electronic publishing and inputting data into a shared database. We also have access to a wide variety of software for applications, and databases.

3. We are now mounting a project to spin databases within JANET at no cost to the immediate users. This project is to examine the costings, copyright, use, evaluation and worth of removing the taxi-metre sense that usually inhibits using databases on-line. This will give us the chance to perform quite large scale evaluations of databases and might help us to deal with some of the earlier questions I raised.

4. We are also now mounting a project which could go a long way towards solving some of our more general problems. Broadly the idea is that each of the small institutions will input its catalogue data into its microcomputer using whatever software is being used. This data could be piped to the Commonwealth Agricultural Bureau (or other institution) where it can be processed into microBASIS and then published on a CDROM, along with the software, UN Macrothesaurus and any directories for which we have been able to make arrangements.

The discs will then be sent to the contributing institutions. Within any one, UCL for example, the Library will spin the disc and dump the SDI profile output for a particular researcher into his or her mailbox.

That data can then be either dumped to a micro or discarded according to suitability. If a researcher finds too much material or unsuitable material is being cited the SDI profile can be amended. Using a software package such as Headform that individual's

input to his/her system can then be reformatted into whatever datastructure is being used.

In turn the contributing institution then inputs new catalogued data, amends its directory entries, adds recent theses accepted, inputs its journal indexing contribution and so forth, and sends that data for the next issue of the ROM.

5. This experiment in Britain, linked to the Nordic, German, French and ECSSID and ACCIS developments, gives us a good opportunity to improve access to information policy and planning in developing countries. With better access we can then tackle the interesting questions.

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